

XLVIII.—*Sixth Account of new Species of Snakes in the Collection of the British Museum.* By ALBERT GÜNTHER, M.A., M.D., Ph.D., F.R.S.

[Plates XVII., XVIII. XIX.]

THE following species of Ophidians have been added to the Collection of the British Museum since the publication of the last paper on the same subject in this Journal (July 1866, xviii. pp. 24–29). The total number of species in that collection amounts now to 863, and that of the typical specimens to 330. In the following lists some of the species are marked with an asterisk (*); of these, as well as of some others, I have added descriptions or shorter notices.

I. *List of Species which were formerly desiderata.*

- **Silybura grandis*, *Bedd.* Anamallay Forest. Capt. Beddome.
 — *rubromaculata*, *Bedd.* Anamallay Forest. Capt. Beddome.
 **Platyplectrurus trilineatus*, *Bedd.* Anamallay Forest. Capt. Beddome.
Elapomorphus acanthias, *Kröyer.* Sierra Leone. J. C. Salmon, Esq.
Liophis (*Diadophis*) *Arnyi*, *Kennicott.* City of Mexico. Hr. Doorman.
Tropidonotus nigrocinctus, *Blyth.* Pegu. Mr. Theobald.
Ahætulla punctata, *Ptrs.* Zanzibar. Dr. Kirk †.
 * — *dorsalis*, *Bocage.* Benguella. Dr. B. du Bocage.
 **Tragops javanicus*, *Steindachner.* Pegu. Mr. Theobald.
Pareas margaritophorus, *Jan.* Pegu. Mr. Theobald.
 **Boodon variegatus*, *Bocage.* Benguella. Dr. B. du Bocage and Mr. Monteiro.
Hoplocephalus fuscus, *Steindachner.* Van Diemen's Land. G. Krefft, Esq.
Elaps gastrodelus, *Dum. & Bibr.* Chyavetas. Mr. Bartlett.

II. *List of the new Species procured and described since July 1866.*

- **Xenocalamus bicolor*, *Gthr.* Zambeze. Museum of Cape Town.
 **Geophis latifrons*, *Gthr.* Pebas. Mr. Bates.
 * — *bicolor*, *Gthr.* City of Mexico. Hr. Doorman.
 **Simotes amabilis*, *Gthr.* Arrakan Hills. Mr. Theobald.
 * — *cruentatus*, *Theobald.* Pegu. Mr. Theobald.
 * — *Theobaldi*, *Gthr.* Pegu. Mr. Theobald.
 **Ablabes bistrigatus*, *Gthr.* Pegu. Mr. Theobald.
 **Cyclophis nebulosus*, *Gthr.* Nagasaki. Mr. Whitely.

† Besides the species mentioned in these lists, the following have been sent by Dr. Kirk from Zanzibar:—*Prosymna meleagris*, *Uriechis capensis* (Smith), *Psammophis sibilans* in three varieties, *Boodon lineatus*, *Clotho arietans*, *Dasypeltis scabra*.

- **Dromicus viperinus*, *Gthr.* Pebas. Mr. Hauxwell.
- *— *laureatus*, *Gthr.* City of Mexico. Hr. Doorman.
- **Herpetodryas occipitalis*, *Gthr.* Pebas. Mr. Hauxwell.
- **Tropidonotus Swinhonis*, *Gthr.* Formosa. Mr. Swinhoe.
- **Hydrops callostictus*, *Gthr.* Upper Amazons. Mr. Bartlett.
- **Mimophis madagascariensis*, *Gthr.* Madagascar. Rev. W. Ellis.
- **Rhagerrhis unguiculata*, *Gthr.* Zanzibar. Dr. Kirk.
- *— *tritæniata*, *Gthr.* East Africa. Mr. Warwick.
- **Ahætulla Kirkii*, *Gthr.* Zanzibar. Dr. Kirk.
- Dendrophis calligaster*, *Gthr.* Cape York. Purchased.
- **Leptodira nigrofasciata*, *Gthr.* Nicaragua. Dr. Seemann.
- **Dipsas ochraceus*, *Theobald.* Pegu. Mr. Theobald.
- **Pythonodipsas carinata*, *Gthr.* Zambeze. Museum of Cape Town.
- **Lycophidium acutirostre*, *Gthr.* Zanzibar. Dr. Kirk.
- **Callophis japonicus*, *Gthr.* Nagasaki. Mr. Whitely.
- **Elaps Batesii*, *Gthr.* Pebas. Mr. Hauxwell.
- **Atractaspis rostrata*, *Gthr.* Zanzibar. Dr. Kirk.

Plectrurus trilineatus (Bedd.).

This is another very interesting addition made by Capt. Beddome to the family of *Uropeltidae*. It differs from *Plectrurus* proper, and, like *Melanophidium*, approaches the *Calamaridae*. The head is remarkably flattened, obtusely rounded in front; no mental groove; tail comparatively long, with a distinct double series of subcaudals, terminating in a horny shield, the edge of which is horizontal, and not vertical as in *Plectrurus*; the shield is one-, and not two-pointed. I propose the generic name *Platyplectrurus* for it.

Silybura grandis.

Rhinophis grandis, Beddome.

This snake is more closely allied to *Silybura ocellata* than to *Rhinophis pulneyensis*, to which it has been compared by its discoverer. However, these species show that the distinction between *Silybura* and *Rhinophis* is scarcely generic, and that they may be united before long.

XENOCALAMUS (g. n. Calamar.).

Body cylindrical, elongate; tail short; head long, depressed, narrower than the neck. Eye extremely small, with round pupil; rostral large, conically produced, the mouth being quite at the lower side of the head; one pair of frontals; vertical enormous; occipitals small; nostril between two shields; loreal none; scales smooth, without apical groove, in seventeen series; anal and subcaudals paired. Maxillary teeth few in number, smooth; palate without teeth.

Xenocalamus bicolor. Pl. XIX. figs. A.

The principal characters by which this interesting snake may be recognized at once are contained in the generic diagnosis, and may be completed thus:—

The vertical shield is the largest shield of the head, six-sided, with an obtuse angle in front and a pointed one behind; the occipitals are comparatively small, ovate shields, forming only a very short suture behind the vertical. The nostril is situated between two shields, the anterior being very small, the posterior elongate, similar in form and size to the præocular; supraorbital and postocular very small; six upper labials, the anterior very small, the third and fourth entering the orbit, the fifth forming a long suture with the occipital, and larger than any of the other labials, the sixth very small again; one large temporal; five lower labials besides the small anterior median shield; the first pair of lower labials form a suture behind the median labial; the second small; the third very large, as long as the others together; a single pair of narrow lanceolate chin-shields. Ventrals 219.

Upper parts uniform black; lower parts and the two outer series of scales uniform white. I have examined a single specimen, 17 inches long (tail mutilated), found by Mr. J. Chapman on the Zambeze.

The three figures on Pl. XIX. represent the head, of twice the natural size.

Geophis elaps (Gthr.).

Rhabdosoma brevifrenatum, Jan.

We have received this snake recently also from Pebas.

Geophis latifrons. Pl. XIX. figs. B.

Scales in seventeen rows. Ventrals 155; anal entire; subcaudals thirty-six. Upper labials six, the third and fourth entering the orbit; two postoculars; temporals 1+2; one pair of chin-shields in contact with four labials. Vertical very broad, broader than long, with the lateral edges short and convergent; frontals longest in their transverse diameter.

Head and neck black, with a yellow ring across the posterior half of the occipitals and the temporal shields. Body encircled by ten pairs of black rings, each ring being as broad as the red interspace. Each scale of the red interspace with a black tip; tail with two pairs of similar rings.

One specimen has been sent from Pebas by Mr. Hauxwell, a correspondent of Mr. Bates. It is 10 inches long, the head being 4 lines, the tail 18 lines.

Geophis bicolor.

Head rather broad, short, and depressed; body and tail of moderate length. Eye small. Anterior frontals about one-fourth the size of posterior; vertical rather longer than broad, with the anterior angle very open; occipitals as long as postfrontals and vertical together, rounded behind; six upper labials, the third and fourth entering the orbit; the fifth is the largest and forms a long suture with the occipital. The remainder of the temple is covered by scale-like temporals 1+2. Two postoculars. Anterior chin-shields twice as long as posterior, in contact with four labials. Scales in seventeen rows, smooth, without apical groove. Ventrals 160-168; anal entire; subcaudals 39-48.

Upper parts uniform black; below white; on the two or three outer series of scales the white colour appears in more or less distinct small spots, whilst the black of the upper parts extends to the angles of the ventral shields. Each subcaudal black in front.

We have received four examples of this species in a collection made in the neighbourhood of the city of Mexico by Hr. Doorman. The largest is $14\frac{1}{2}$ inches long, the tail being 3 inches, and the head 5 lines.

Simotes bicatenatus (Gthr.).

Specimens of this snake have been collected by Mr. Theobald in Pegu.

Simotes venustus (Jerdon).

We have lately received well-preserved examples from Mr. Theobald and Capt. Beddome. I find that this snake, originally referred to *Xenodon* by Mr. Jerdon, has only one or two palatine teeth, and is therefore intermediate between *Simotes* and *Oligodon*.

Simotes amabilis. Pl. XVII. fig. A.

Scales in nineteen rows. One præ-, two postoculars; loreal square; seven upper labials, the third and fourth entering the orbit; temporals 1+2; ventrals 178; anal entire; subcaudals seventy-five.

Head with the markings usual in the species of this genus. Back with forty-one narrow yellow cross bars, each edged with black in front and behind, the entire marking being scarcely broader than a scale; tail with similar markings, but more or less broken up into spots. Lower parts white, a rather irregular series of small blackish spots along each side of the belly, not continued on to the tail.

One specimen, 10 inches long, was obtained by Mr. Theobald on the Arrakan Hills.

Simotes cruentatus.

Scales in seventeen rows. One præ- and two postoculars; loreal rather longer than deep; eight upper labials, the fourth and fifth entering the orbit; temporals 1+2; ventrals 165-167; anal bifid; subcaudals 33-37.

Head and neck with the markings usual in the species of this genus rather indistinct. Body brownish olive, with four very indistinct darker lines; abdomen white, with square black spots; anal shield white; the three or four first subcaudal shields black, the others red; generally another black spot at some distance from the end of the tail.

We have received several examples, under the name given above, from Mr. Theobald, who discovered this snake in Pegu. The largest of the specimens is 15 inches long; one female example, 13 inches long, has five ova in the oviduct, each ovum being 9 lines long.

Simotes Theobaldi.

Scales in seventeen rows. One præ- and two postoculars; loreal much longer than high; eight upper labials, the fourth and fifth entering the orbit; temporals 1+2+3; ventrals 177; anal bifid; subcaudals 34.

Head and neck with the markings usual in the species of this genus; upper parts of the body brown, with a light vertical line commencing from the occiput and longitudinally dividing the black nuchal spot; another light line on each side of the back, along the fifth outer series of scales. Back crossed by numerous very narrow reticulated black streaks; the outer two series of scales light olive-coloured; abdomen with square black spots; subcaudals uniform white.

This species is allied to *Simotes cruentatus*, but differs from it in the coloration and form of the loreal shield. We have received one example, 16 inches long, from Mr. Theobald, who discovered it in Pegu.

Ablabes bistrigatus.

Closely allied to the species of the group *Enicognathus*. Scales in seventeen rows; loreal square; one præocular, reaching to the upper surface of the head; two postoculars; the occipital extends downwards to the lower postocular; one temporal in front, in contact with the lower postocular only; two posterior temporals; upper labials ten, the fourth, fifth, and sixth entering the orbit; ventrals 192; anal bifid; subcaudals 82.

Body brownish olive; upper side of the head and neck black, with symmetrical yellow markings arranged along the margin of the head; a pair of yellow dots on the occipitals; a series of black dots along the vertebral line; a well-defined deep-black streak runs along each side of the body along the meeting edges of the fourth and fifth outer series of scales; it extends to the extremity of the tail. Lower parts uniform whitish.

A single specimen, $10\frac{1}{2}$ inches long, was obtained by Mr. Theobald in Pegu; tail 3 inches long.

Cyclophis nebulosus. Pl. XIX. figs. C.

Body slightly compressed; tail rather short; head of moderate length, distinct from neck. Eye of moderate size; loreal elongate; one præocular, scarcely reaching to the upper surface of the head; two postoculars; eight upper labials, the fourth and fifth entering the orbit, the sixth small, much smaller than the fifth; temporals elongate, 1+2; anterior chin-shields longer than posterior, in contact with four labials.

Scales in fifteen rows, short, rounded, without apical groove; ventrals 174; anal bifid; subcaudals 77.

Greenish olive. Anterior part of trunk with four or six series of obscure nebulous spots, which are confluent into longitudinal bands on the posterior part of the trunk. Head immaculate; lower side uniform whitish.

A single example was obtained by Mr. Whitely at Nagasaki. Total length $9\frac{1}{2}$ inches, length of head 5 lines, of tail 2 inches.

Enicognathus annulatus (D. & B.).

Varies in the number of the black cross bands, which are irregular in shape; ventral shields 140–156. An example from Vera Paz is considerably more slender than others from the city of Mexico. It appears to be rare.

Dromicus viperinus.

Scales in seventeen rows. Ventral shields 160–161; anal bifid; subcaudals sixty. Upper labials eight, the third, fourth, and fifth entering the orbit; loreal higher than long; one præ-, two postoculars; temporals 1+2+3. The posterior maxillary tooth is the longest, and separated from the preceding by an interspace. Upper parts blackish grey, this colour extending, without interruption, over the sides to the edge of the ventral shields. Neck with a darker collar, from which a dark zigzag band proceeds along the median line of the back; it becomes indistinct on the posterior part of the trunk, and re-

appears as a straight band on the tail. Upper part of the head uniform brown, separated from the white colour of the lower part by an indistinct black line, which runs from the orbit to the angle of the mouth, and is indistinctly edged with white below. Ventral and subcaudal shields uniform white, having only a blackish spot on the side, as mentioned before.

Two specimens were sent by Mr. John Hauxwell from Pebas; they are 12 inches long, the length of the head being 4 lines, and that of the tail $3\frac{1}{2}$ inches. Another example, collected by Mr. Fraser in Western Ecuador, appears to belong to the same species.

Dromicus laureatus. Pl. XIX. figs. E.

Scales smooth, in seventeen rows, many with a small apical groove. Form of the head as in *Coronella lævis*; body and tail moderately slender. Eye of moderate size; the rostral does not extend to the upper surface of the head; anterior frontals scarcely half as large as posterior; vertical longer than the snout, but shorter than the occipitals, which are rounded behind; loreal square; one præorbital, reaching to the upper surface of the head, but not extending on to the vertical; two postoculars; seven upper labials, the third and fourth entering into the orbit; temporals 1+2+3, the anterior in contact with both postoculars; two pairs of chin-shields, nearly equal in length; ventrals 163; anal bifid; subcaudals 95.

A lead-coloured band, three scales broad, runs from the nape, along the median line of the back, to the end of the tail; flanks reddish, with a very indistinct greyish streak along the fourth outer series of scales; two yellow lines across the rostral, the lower runs along the upper labials and across the neck, thus entirely encircling the head; the upper runs along the canthus rostralis, and stops or terminates in the temporal region. Lower parts uniform yellowish.

One specimen was in a collection made by Hr. Doorman in the neighbourhood of the city of Mexico. It is 21 inches long; head 6 lines, tail 7 inches.

The dentition of this species is neither distinctly diacranterian nor syncranterian. The maxillary is armed with nine teeth, gradually becoming stronger, longer, and more widely set behind; the last is conspicuously the longest, but scarcely more distant from the penultimate than this is from the antepenultimate, although these three teeth are much more distant than the others are from each other.

Herpetodryas occipitalis.

Similar to *Herpetodryas Rappii*. Habit moderately slender. Eyes large. Shields of the head normal; eight upper labials, the third, fourth, and fifth entering the orbit; loreal nearly as high as long; præocular reaching to the upper surface of the head, but not extending to the vertical; lateral edges of the vertical nearly parallel; occipitals subtruncated behind. Two or three postoculars; temporals 2+2. There are four lower labials in contact with the front chin-shields, which are three-fifths as long as the posterior.

Scales smooth, in fifteen rows. Ventrals 175; anal entire; subcaudals 96.

Upper parts brownish black, with narrow greyish transverse lines, separated from one another by five or six transverse series of scales; a broad white band across the occipitals, extending behind the orbit to the posterior labials; hind margin of each labial black; ventrals pearl-coloured, marbled with black on the sides.

A specimen, 14 inches long, has been obtained by Mr. Hauxwell at Pebas. Head 6 lines, tail $3\frac{1}{2}$ inches.

Tropidonotus Swinhonis. Pl. XIX. fig. F.

Head rather narrow and elongate; trunk rather slender. Eye of moderate size. Scales in fifteen rows. Ventrals 150; anal bifid; subcaudals between 50 and 60. Anterior frontals rounded in front, half as large as posterior; occipitals obliquely truncated behind, longer than vertical; loreal as deep as long; one præocular, reaching to the upper surface of the head; three postoculars. Six upper labial shields, the third and fourth entering the orbit, the fifth very long, nearly as long as the three preceding ones together; temporals 1+2, the anterior rather elongate, in contact with the two lower postorbitals. Dentition diacranterian.

Upper parts nearly uniform olive-brown, anteriorly with a few indistinct and irregular blackish spots. Neck reddish olive, with a broad black collar: a small blackish spot below the eye, and an oblique blackish band across the temporal region. Lower parts uniform whitish, slightly and finely marbled on the side.

Formosa. A single specimen, 25 inches long, has been obtained by Consul Swinhoe. Head 9 lines long, tail 5 inches.

Tropidonotus punctulatus (Gthr.).

This snake proves to be a native of Pegu, whence specimens were brought by Mr. Theobald.

Gerarda bicolor (Gray).

This snake is not from the West Indies, but from Pegu, where specimens were collected by Mr. Theobald.

Hydrops Martii (Wagl.).

Hygina fasciata, Gray.

Scales constantly in fifteen series.

Hydrops callostictus. Pl. XVII. fig. B.

Scales in seventeen rows. Anterior frontal nearly twice as broad as long; occipitals as long as the vertical and frontals together; two postoculars; eight upper labials, the fourth entering the orbit; the second upper labial in contact with the posterior frontal; loreal none; temporals 1+1. There are four lower labials, in contact with the front chin-shields. Ventrals 168; anal bifid; subcaudals 90. The upperside of the head and of the back reddish olive. Sides and belly of a lighter colour, approaching to white; body and tail encircled by numerous black rings, each about two scales broad and edged in front and behind by pearl-coloured dots; the bands are frequently broken on the median line of the back and belly. Snout black, with a yellow band across the prefrontal; temple black, separated from the first black ring by a yellowish-white cross band.

One specimen, 11 inches long, was found by Mr. Bartlett at Chyavetas (Upper Amazons).

MIMOPHIS (g. n. Psammophid.).

Body and tail moderately slender, scarcely compressed; form of the head as in *Psammophis*, but with the loreal region less distinctly grooved; rostral shield not enlarged; eye of moderate size, with round pupil; nostril small, placed in a single shield, behind which is another small shield; loreal none, replaced by the posterior frontal, which is bent downwards on the sides; scales smooth, with one apical groove, in seventeen rows, those of the vertebral series not enlarged; ventrals not keeled; anal and subcaudals bifid; the third or fourth maxillary tooth enlarged; posterior maxillary tooth grooved; front teeth of the lower jaw larger than the posterior.

This genus bears a similar relation to *Psammophis* as *Tropidococcyx* to *Tragops*, and illustrates in some measure the affinity between the *Dryophidæ* and *Psammophidæ*.

Mimophis madagascariensis. Pl. XVIII.

In habit very similar to *Psammophis sibilans*. Snout

slightly pointed, tetrahedral, the canthus rostralis being distinct; loreal region scarcely concave; eye of moderate size. Rostral shield not quite so high as broad, reaching to the upper surface of the head; anterior frontals small, triangular, pointed in front, as long as broad; posterior frontals rather longer than anterior, bent downwards on the sides, and forming a broad suture with the second upper labial. Vertical elongate bell-shaped, as long as the occipitals, which are rounded behind. The nasal shield proper is trapezoid and large, pierced by the small nostril in its upper posterior portion. A smaller quadrangular shield, which is higher than long, is intercalated between the nasal and posterior frontal, and may be considered to be a posterior nasal; there is no loreal. One præocular, concave before the eye, and bent upwards on the upper side of the head, without reaching the vertical. Two postoculars; eight upper labials, the fourth and fifth entering the orbit; temporals small, rather irregular, 2+3. The anterior chin-shields are shorter than the posterior, and in contact with four labials. Ventrals 151, 354; subcaudals 62-170.

Brownish yellow; a broad blackish-brown band, which is four scales broad in the middle of the body, runs from the upper side of the head, along the back, to the tip of the tail. Another, narrower and less intensely coloured stripe runs from the nostril, through the eye, along the meeting edges of the third and fourth outer series of scales; a third, of about the same width, but of a brighter colour, along the meeting edges of the two outer series of scales: all these bands have more or less distinct darker edges. Lower side yellowish, with four faint purplish longitudinal bands.

Three specimens of this beautiful snake were presented by the Rev. W. Ellis to the British Museum. The largest is 22 inches long, head $7\frac{1}{2}$ lines, tail 5 inches. They were collected in Madagascar.

Rhagerrhis unguiculata. Pl. XIX. figs. G.

Scales short, rounded, without apical groove, in seventeen series; ventrals 176; anal bifid; subcaudals 100. Body moderately slender; head short, high, with the upper profile convex, terminating in a broad rostral shield, which is bent downwards and provided with a sharp edge like a nail; anterior frontals much broader than long; posterior frontals not twice as large as anterior, broader than long. Vertical six-sided, with the anterior and posterior angles equally obtuse, and as broad behind as in front; occipitals short, shorter than the vertical, rounded behind. Nostril in a single shield, the

posterior edge of which is rather irregular; loreal as high as long; two præoculars, the upper of which contributes to the canthus rostralis, extending to the upper side of the head, but not by some distance reaching the vertical; two postoculars; eight upper labials, the fifth only entering the orbit; temporal shields small, irregular.

The median lower labial shield is extremely narrow; the chin-shields of nearly the same length, the anterior in contact with four or five labials.

Greyish olive; many of the scales, especially on the hinder part of the trunk, with a dark or blackish dot, a blackish streak through the eye; lower parts nearly uniform whitish.

A single specimen has been sent by Dr. Kirk from Zanzibar. It is 15 inches long; length of the head $6\frac{1}{2}$ lines, of the tail 4 inches.

Rhagerrhis triteniata. Pl. XIX. figs. H.

I have been in some doubt as regards the systematic position of this snake. Although it evidently belongs to the group of Psammophids, it does not perfectly agree with any of the genera. Having the coloration of a true *Psammophis*, it differs from the species of this genus in its dentition, in which character it agrees with *Rhagerrhis*; but the rostral shield is not so much produced—scarcely more than in *Cœlopeltis*, from which it differs in the structure of the scales.

Head rather short, scarcely distinct from neck; body and tail moderately slender. Eye of moderate size; rostral shield as high as long, extending to the upper surface of the head, slightly advancing between the anterior frontals; anterior frontals not very much smaller than posterior; vertical narrow, rather longer than the snout, and conspicuously longer than the occipitals, which are obliquely truncated behind; two nasals; loreal square; præorbital single, slightly concave, not quite reaching the vertical; two postoculars; eight upper labial shields, the fourth and fifth entering the orbit; temporals 2+3+4; two pairs of chin-shields, nearly equal in length.

Scales smooth, much imbricate, in seventeen rows, with a small apical groove. Ventrals 161; anal bifid; subcaudals 61.

Brownish olive, with three dark-brown bands edged with black. The median band occupies the vertebral series and the halves of the adjoining series of scales, a white line running along its middle; this band commences immediately behind the occipitals, and terminates in the anterior part of the tail. The lateral band runs along the third and fourth outer series and the halves of the adjoining series of scales, commencing

on the nasal shield, crossing the eye and temple, and terminating near the end of the tail. Lower parts uniform whitish.

This snake is probably from South-eastern Africa, and was obtained of Mr. Warwick. It is 20 inches long, the tail being 4 inches, and the head 6 lines.

Ahætulla dorsalis.

Leptophis dorsalis, Bocage.

Maxillary dentition "coryphodont," the posterior teeth being but little longer than the preceding. Ventral shields keeled. Upper labials nine, three entering the orbit. Anal bifid; ventral plates 184. Temporal shields 1 + 1 + 1. Skin between the scales black; each scale with a whitish spot on its outer margin.

Angola.

Ahætulla Kirkii.

Ventral shields with strong lateral keels. Upper labials nine, two of which enter the orbit; arrangement of temporal shields rather irregular; anal bifid; ventral shields 171, 173; subcaudals 136-140.

Scales smooth, in fifteen rows, without apical groove. Lo-real elongate; præocular in contact with the vertical. Teeth longest behind, in a continuous series.

Green; skin between the scales black; without white spot.

Three examples have been sent by Dr. Kirk from Zanzibar. The longest is 40 inches long; tail 15 inches.

Dryophis argentea (Daud.).

We have lately received specimens of this snake in collections made at Pebas and Yuimaguas, together with *Rhinobothryum lentiginosum*.

Tragops fronticinctus (Gthr.).

Specimens of this snake have been collected by Mr. Theobald in Pegu.

Tragops javanicus (Steindachner).

This is a very distinct species, occurring also in Pegu, where specimens have been collected by Mr. Theobald. The anal shield is sometimes entire, sometimes divided; ventrals 189-192-193. Scales in the coccygeal region generally keeled. Prof. Peters (Monatsber. Ak. Wiss. Berl. 1868) has observed such keeled scales also in *Tragops prasinus*; only a few of our numerous examples of that species show slight traces of keels in that region. *Tropidococcyx* (Gthr.) is based on the difference of the shields of the head (the form of which

approaches that of *Psammophis*, see Rept. Brit. Ind. p. 301), and is more distinct from *Tragops* than *Passerita* from the latter genus.

Leptodira annulata (L.).

A singular, nearly uniform slate-coloured variety, with the markings very indistinct, occurs at Chiavetas, Upper Amazons. It has the scales in nineteen rows.

Leptodira nigrofasciata.

Scales in nineteen rows, smooth, with two apical grooves. Rostrals scarcely reaching to the upper surface of the head; anterior frontals nearly square, two-thirds the size of posterior; vertical as long as the snout and a little shorter than the occipitals, which are rather narrow and rounded behind; loreal as high as long; one præ- and one postocular, the former not quite reaching to the vertical; eight upper labial shields, the third, fourth, and fifth entering the orbit; temporals 1 + 2 + 3; ventrals 174; anal bifid; subcaudals 74.

Body with sixteen broad black cross bands, which are from three to four times broader than the interspaces of the whitish ground-colour, and confluent on the posterior part of the trunk. Head black above, separated by a white collar from the first black band; tail with about eight black cross bands. Lower parts whitish. The posterior maxillary tooth grooved.

One specimen was found by Dr. Seemann in Nicaragua; it is 14 inches long, the tail being $3\frac{1}{2}$ inches.

Dipsas ochraceus.

Scales in nineteen rows, with an apical groove, those of the vertebral series larger than the others. Ventrals 239-242; anal entire; subcaudals 100; nostril rounded, immediately below the anterior frontal; loreal nearly as high as long. One præocular, not reaching to the upper surface of the head; two postoculars; temporals varying in number, the two anterior are elongate and generally in contact with the postoculars; eight upper labials, the third, fourth, and fifth entering the orbit; two pairs of chin-shields, the anterior not much larger than the posterior. Anterior palatine and mandibular teeth not much enlarged.

Uniform brownish olive. Inside of mouth not coloured.

We have received this new snake from Mr. Theobald, who named it. Two specimens, the larger of which is 44 inches long, were found by him in Pegu.

PYTHONODIPSAS.

Head depressed, very distinct from neck; body depressed,
Ann. & Mag. N. Hist. Ser. 4. Vol. i. 30

of moderate length. Eye of moderate size; two pairs of frontals; one vertical; superciliary well developed; occipitals replaced by scales; labials separated from the eye by a ring of scales; scales keeled, in twenty-one rows; subcaudals simple; maxillary with the hindmost tooth slightly enlarged and grooved in its basal portion; anterior maxillary teeth and anterior palatine teeth rather larger than the middle ones.

Pythonodipsas carinata. Pl. XIX. figs. K.

Rostral shield broader than deep, just reaching the upper surface of the head; anterior frontals small, scarcely half as large as posterior; (nostril very narrow, between two small shields*). Loreal region covered by two or three scales, one of which points upwards and reaches the vertical; præorbital larger than the seven other scales which complete the orbital ring; occiput and temple covered by equally small scales, the occipital being represented by a small shield situated behind the superciliary shield; nine or ten small upper labials. Scales much imbricate, with the keel rather flat. Ventrals 192; anal entire; subcaudals 51.

Upper parts yellowish olive, with two dorsal series of blackish spots, the spots of several pairs confluent into cross bands; flanks with smaller and less distinct spots; lower parts uniform white.

I have examined one specimen of this singular snake. It was found by Mr. John Chapman on the Zambezi. The specimen is $24\frac{1}{2}$ inches long, the head being 10 lines, and the tail $3\frac{1}{2}$ inches long.

Lycodon rufozonatus (Cant.).

In two young examples from Formosa the loreal does not quite extend to the eye, although it is produced backwards.

Ophites albofuscus (D. & B.).

Occurs also in Formosa; feeds on lizards.

Boodon lineatus (D. & B.).

Specimens from the Zambezi and Zanzibar have the scales in twenty-five or twenty-seven rows. Its food consists of nocturnal lizards, as well as mammals.

Lycophidium irroratum (Leach).

Coluber irroratus, Leach.

Hypsirhina maura, Gray.

Metoporphina irrorata, Gthr.

Alopecion fasciatum, Gthr.

* This portion of the head is unfortunately so much dried that the nostrils have become rather indistinct; they must be extremely small.

We have received from Mr. Salmon several very fine examples of this snake, collected about one hundred miles inland of Sierra Leone, the largest being 16 inches long. I find, from their examination, that this species cannot be separated from *Lycophidium*, the names mentioned having been given to young examples in an indifferent state of preservation. There are two nasal shields, the nostril being in the anterior; the posterior nasal very small. Ventral shields from 164 to 190. The black spots or bands vary in number and extent; they are larger and more band-like in very young examples.

Alopecion annuliferum being most probably a *Boodon*, the genus *Alopecion* may be erased from the system. Bocage's *Alopecion variegatum* is likewise a *Boodon*.

Lycophidium acutirostre. Pl. XIX. figs. D.

Snout much depressed, spatulate, with rather sharp edges. Body of moderate length; tail short. Eye very small; rostral shield very low, extending to the upper surface of the head; anterior frontals about one-fifth the size of posterior; vertical subtriangular; loreal elongate, large; præorbital in contact with the vertical; eight upper labials, the third, fourth, and fifth of which enter the orbit; two postoculars; temporals 1 + 2 + 3, the anterior in contact with the lower postorbital only; chin-shields small, the anterior not larger than the first lower labials. Scales in seventeen rows. Ventrals 140, 146 (twice), 145. Anal entire; subcaudals 23.

Upper and lower parts deep black; scales on the sides and the outer part of the ventral shields finely marbled with bluish. Side of the head yellowish, marbled with black; margin of the snout nearly uniform yellowish.

Several specimens, from 8 to 11 inches long, were sent by Dr. Kirk from Zanzibar; two or three were adult females, each with four ova in the oviduct. This snake feeds on small Scincoids. It is a species very distinct from any of the varieties of *Lycophidium Horstockii*, being distinguished by the peculiar form of the snout and the constantly much smaller number of ventral shields.

The figures represent the head, of twice the natural size.

Lycophidium Horstockii (Schleg.).

The museum of Cape Town is in possession of a specimen from Bayana Bay, Madagascar: it represents one of the numerous varieties of this species, and is uniform dark brown above, whitish below, with numerous brown spots. Ventrals 182.

The number of ventral shields varies much in examples which I refer to *L. Horstockii*. I find

208 in one example from West Africa.

208 in one, habit. — ?

202–200 in two, variety with square white dorsal spots.

188 in one from the Cape.

176 in one from Angola.

153 in one from Ambrizette.

CYLINDROPHIS.

The snakes of this genus are viviparous.

Hydrophis lapemoides (Gray).

An example, 3 feet long, from Madras, has only one post-ocular.

Callophis japonicus. Pl. XVII. fig. C.

Ground-colour whitish in spirits, with a reddish tinge. Anterior half and sides of the head black; a black band, one scale broad, runs from the occipital, along the vertical line, nearly to the tip of the tail; another, narrower and less distinct line runs along the meeting edges of the third and fourth outer series of scales. Body with black cross bands besides, the width of which is about one-third of the interspace between them: some extend round the belly, others do not; there are thirteen of them on the trunk and two on the tail. Belly with a series of large round black blotches, each blotch corresponding to the middle of the interspace between two black dorsal bands.

Seven upper labials; two postoculars; ventrals 205; anal entire; subcaudals 31.

One specimen, 9½ inches long, was obtained by Mr. Whitely at Nagasaki.

Elaps Batesii. Pl. XVII. fig. D.

Upper labials seven, none of them in contact with the occipital; one præ-, two postoculars; temporals 1+1+2; ventrals 196; anal bifid; subcaudals 50. Upper parts uniform shining black; trunk with about sixty transverse series of very small yellow specks; each supraorbital provided with a similar spot; lower parts of the trunk white (in spirits), with a few irregular yellow cross bands; lower part of the tail with alternate yellow and blackish bands.

One example, 12 inches long, was sent by Mr. Hauxwell, a correspondent of Mr. Bates, from Pebas.

Elaps filiformis (Gthr.).

An adult example from Bogota differs from the typical specimen in having two postoculars. Ventral shields 295.

Atractaspis rostrata. Pl. XIX. figs. I.

Head broad, depressed; snout slightly turned upwards, the rostral shield being provided with a sharp anterior edge, and extending backwards for some distance between the anterior frontals; two pairs of frontals. Vertical extremely broad; one præ- and one postocular; five upper labial shields, the third and fourth entering the orbit; temporals 1 + 1, the anterior descending between the fourth and fifth labials: a very long lower labial shield corresponds to the third, fourth, and fifth upper labials. Scales in twenty-three rows. Body elongate. Ventrals 227-244; subcaudals simple, 22 or 23.

Two specimens, 22 inches long, were sent by Dr. Kirk from Zanzibar. This is the fifth species of this genus in the Collection of the British Museum.

XLIX.—*On the Terrestrial Mollusca of Dominica and Grenada; with an Account of some new Species from Trinidad.*

BY R. J. LECHMERE GUPPY, F.L.S., F.G.S., &c.

Part I. DOMINICA.

DOMINICA is, I believe, the only island in the Antilles of which no list of terrestrial Mollusca has yet been published. In Mr. Bland's Catalogue, in the 'Annals of the New York Lyceum,' still the most complete list we possess of the land-shells of the West Indies, it is stated that no species from Dominica were known to the author. To remedy this defect, I took advantage of a vacation to visit and explore that island, which I found to consist chiefly of mountains composed of volcanic rocks, and ranging from 2000 to 5000 feet high. This is perhaps the highest land in the chain of the West-Indian Islands between Jamaica and South America.

There is but little which may be properly called lowlands in Dominica; but on the lower slopes near the sea I found a few Mollusca, chiefly *Bulimulus exilis*, *Stenogyra octona*, *Succinea approximans*, and *Helicina humilis*. Ascending higher, we find *Helix dentiens*, *H. badia*, *H. Josephineæ*, *H. nigrescens*, *Amphibulima patula*, *Bulimulus laticinctus*, and *Helicina epistilia*. Excepting the last one, these species are found everywhere above 300 or 400 feet of elevation. The dense and excessively humid forests which cover all the higher